

Fig. 1

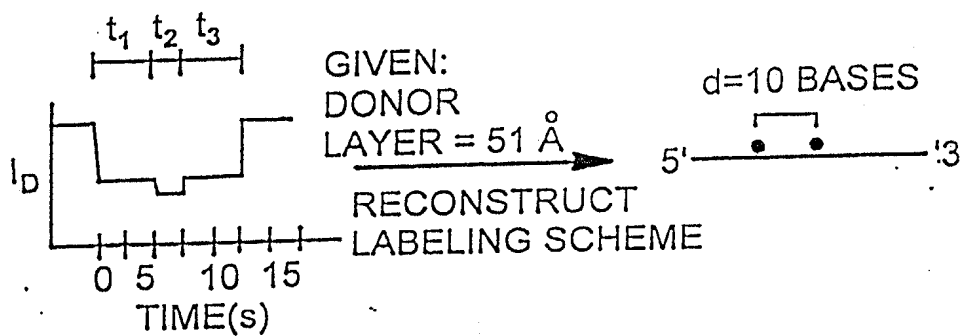


Fig. 2

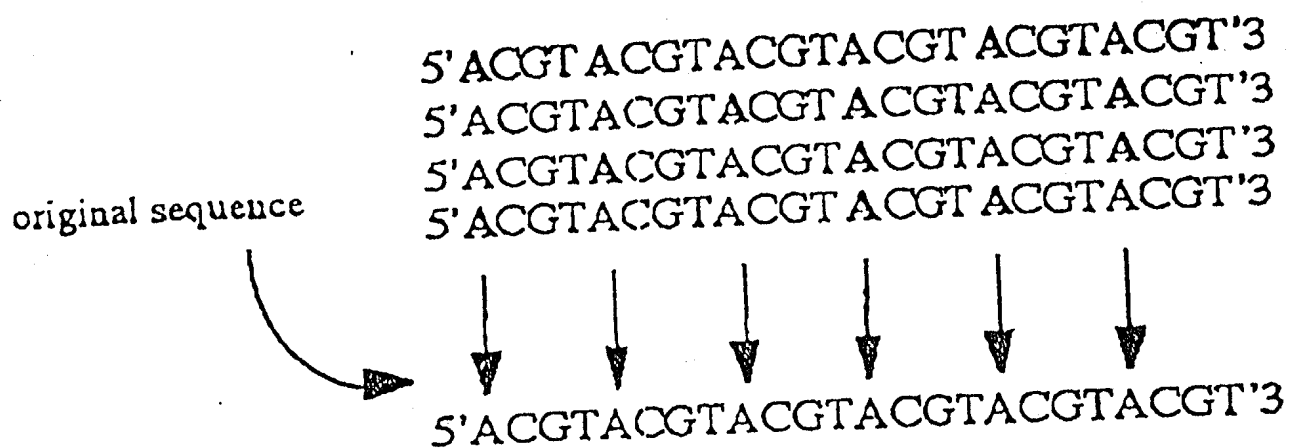


FIGURE 3

Target sequence, 5'ACGT'3

conclusions

Set AC 5'ACGT'3

AG 5'ACGT'3

AT 5'ACGT'3

CG 5'ACGT'3

CT 5'ACGT'3

GT 5'ACGT'3

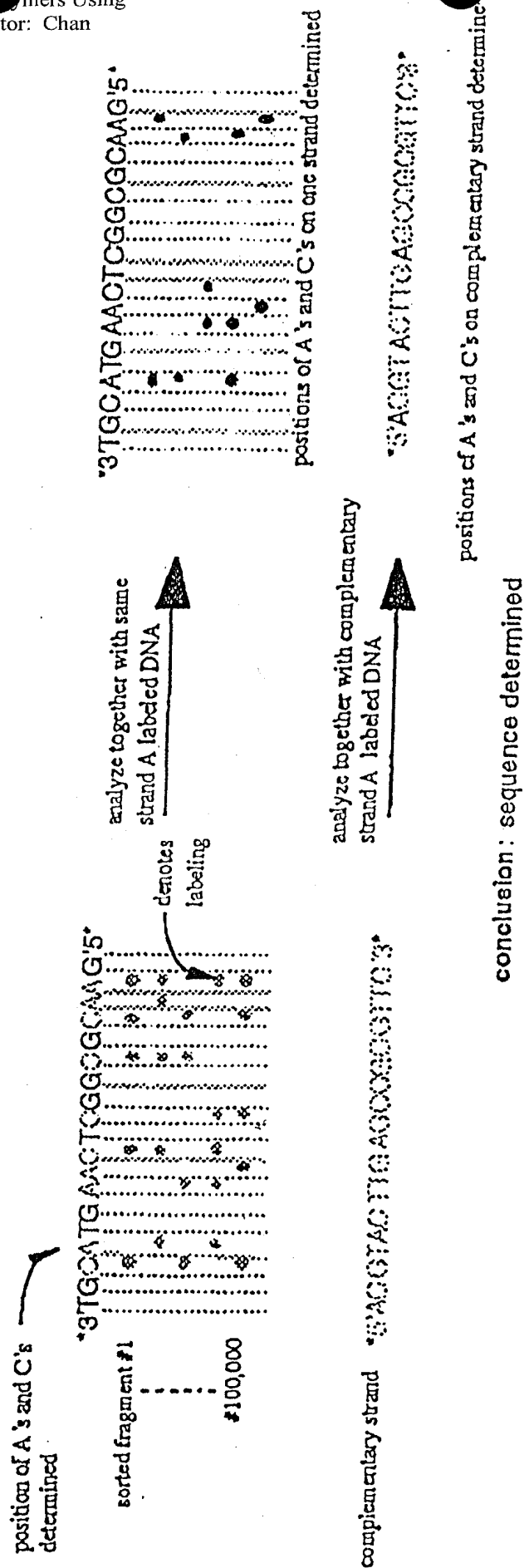
target is a 4-mer
sequence is A(C,G,T), order
of bases following A unknown

G and T follow C,
sequence is AC(G,T)

T follows G,
sequence is ACGT

Two base labeling and analysis.

FIGURE 4



Sorted fragments are used to reconstruct the sequence of the DNA. Using population analysis, the position of the A's and C's on one strand is determined. Subsequently, the position of all the A's on the same strand are determined using the same method. In a similar fashion, the positions of the A's and C's on the complementary strand give information about the G's and T's of the first strand analyzed. The sequence can thus be reconstructed.

FIGURE 5

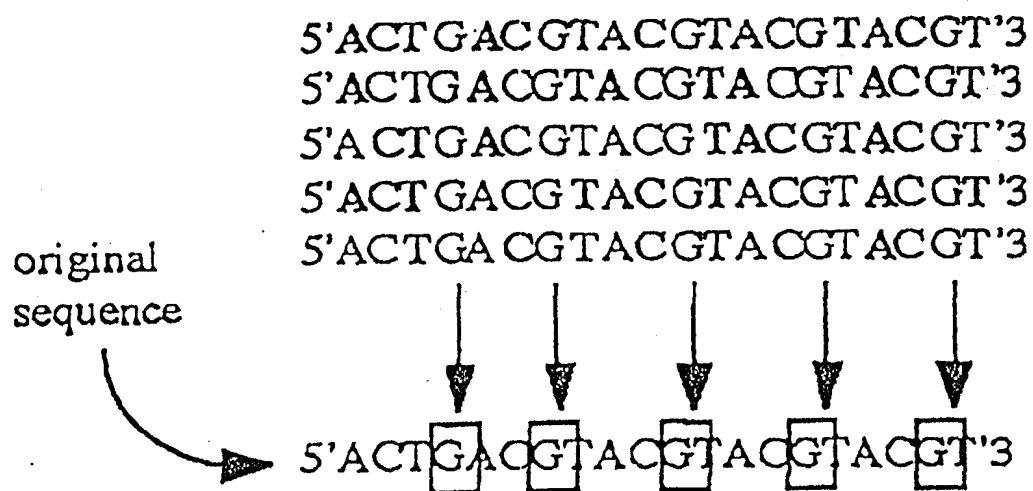
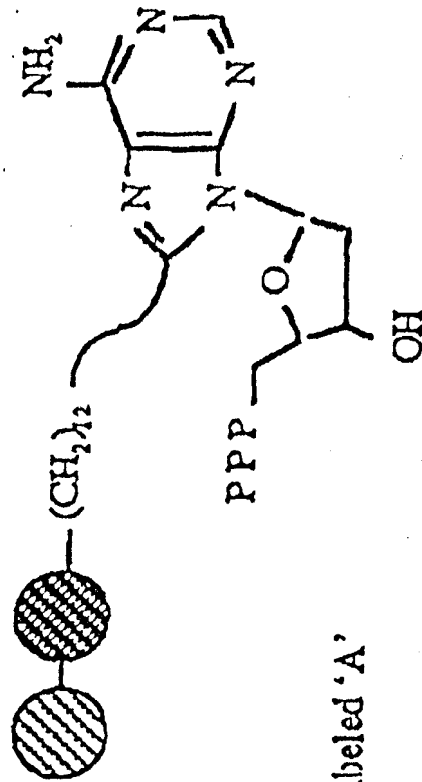


FIGURE 6

$\frac{A}{\text{---}} \quad \frac{\otimes \otimes}{A} \quad \frac{\otimes \otimes}{A-A} \quad \frac{\otimes \otimes}{A} \quad \frac{\otimes \otimes}{A-A} \quad \frac{\otimes \otimes}{A} \quad \frac{\otimes \otimes}{A-A} \quad \frac{\otimes \otimes}{A}$



dual characteristic labeled 'A'

FIGURE 7

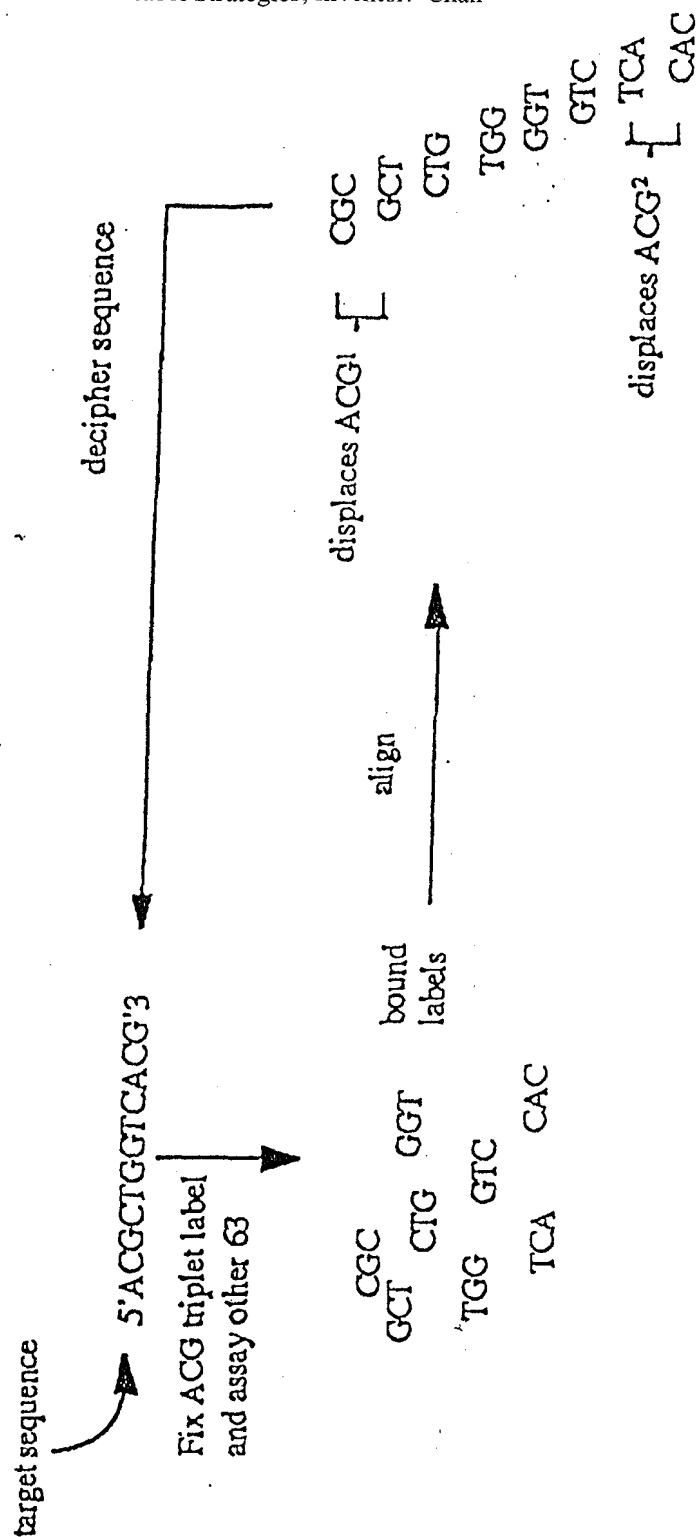


FIGURE 8

T0E120* 89932660

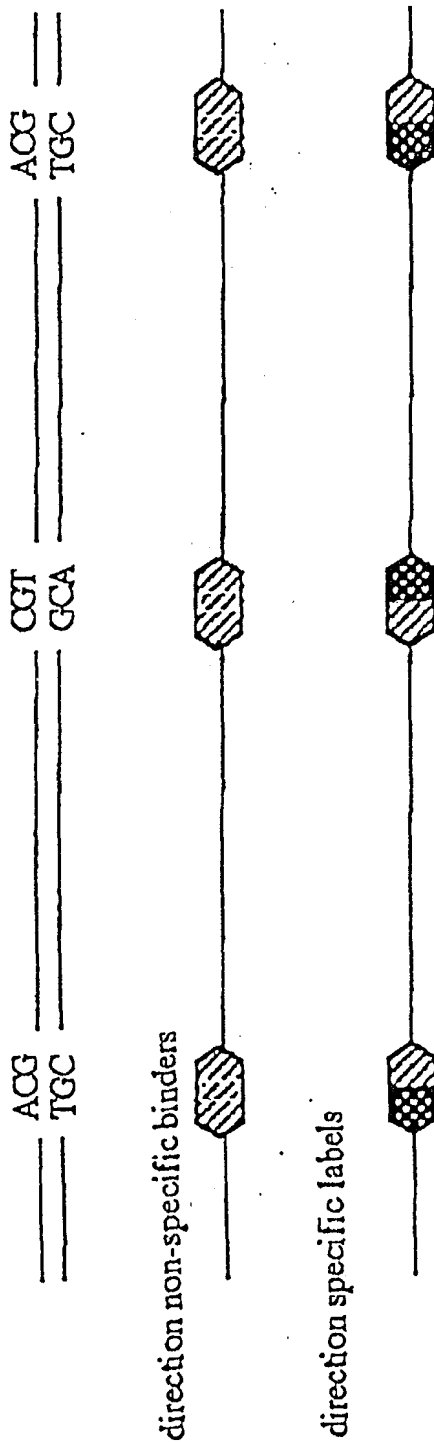
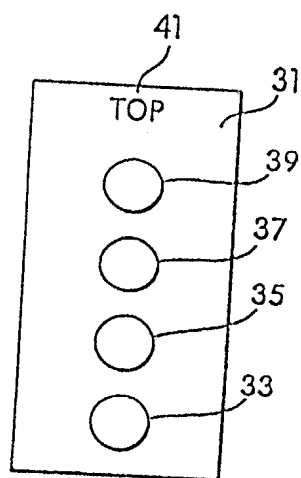
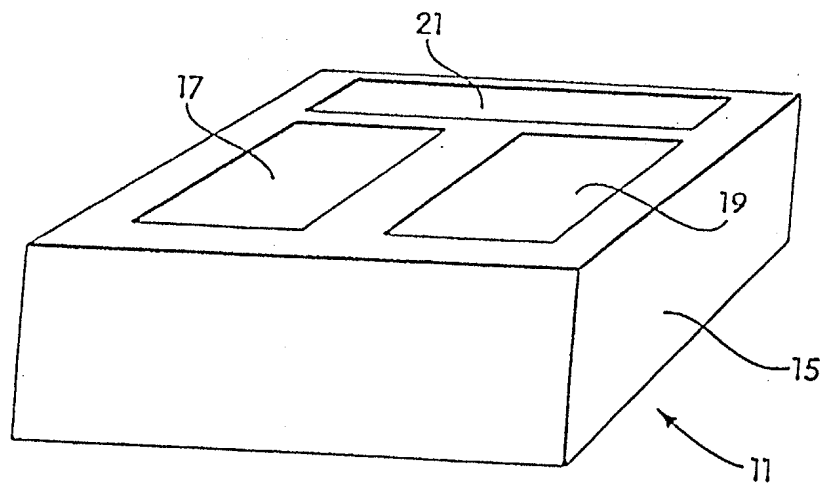
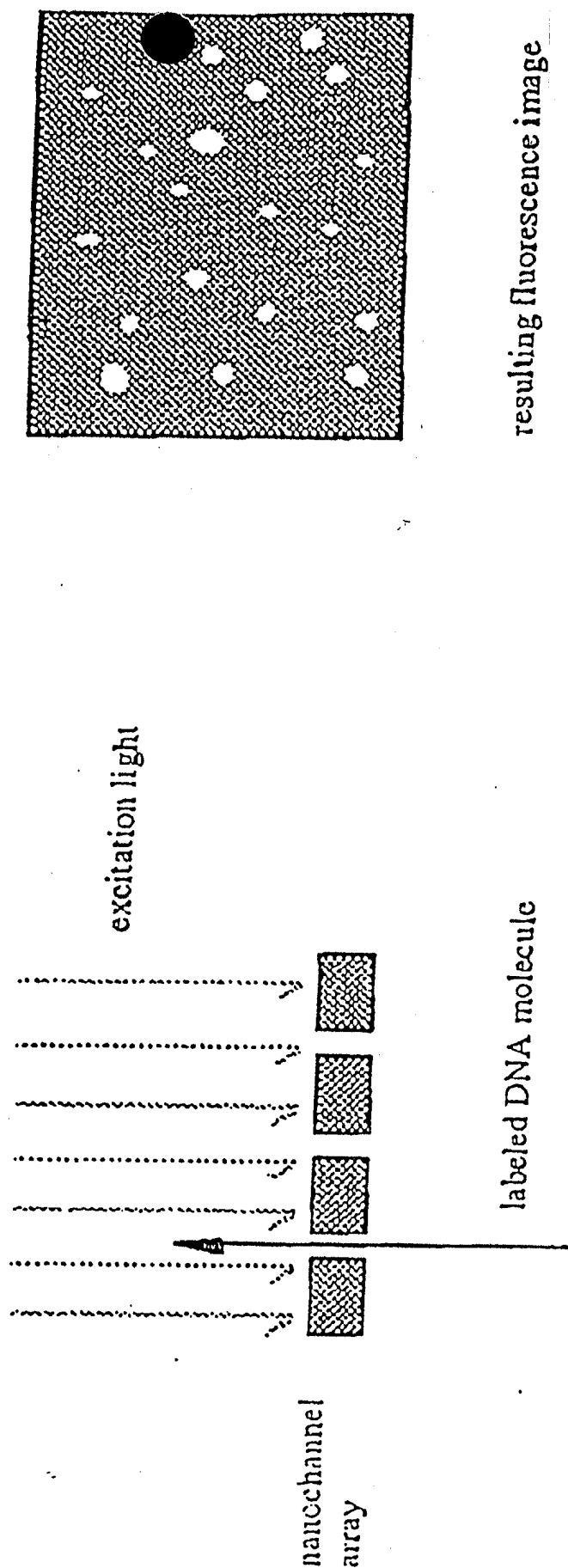


FIGURE 9

Figure 10



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Example 1 and migration of DNA through nanochannel plate.

FIGURE 11

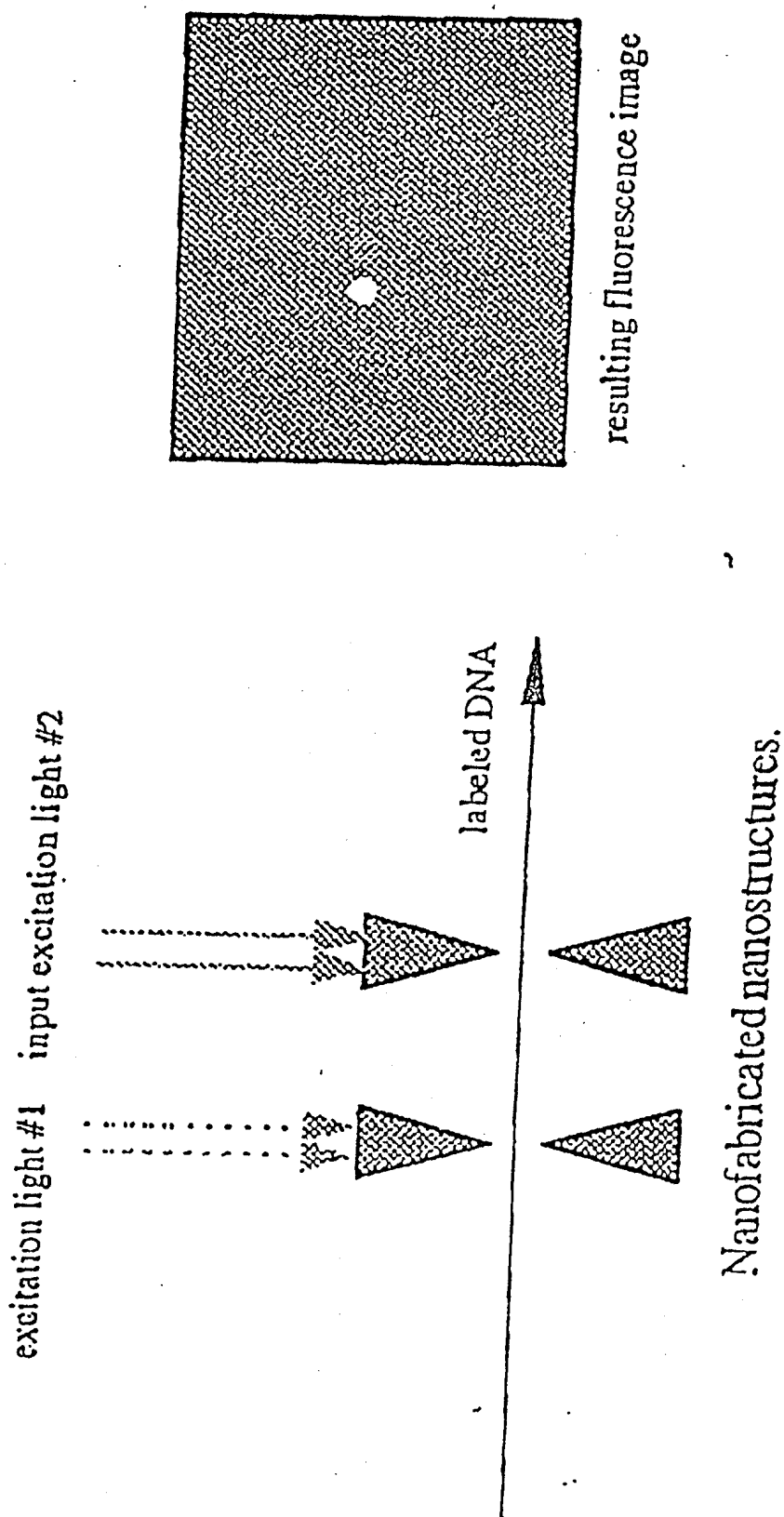
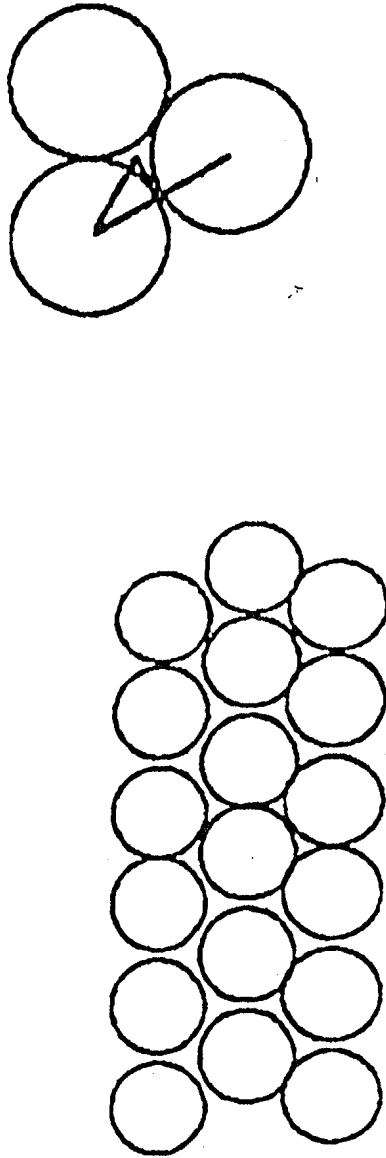


FIGURE 12



Example 3 of hexagonally packed beads as
restrictive nanostructures.

FIGURE 13